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Akhet-Aten, The City of Akhen-Aten

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Abstract

Akhet-Aten took four years under construction before Amen-Hotep IV announcement that the deity is "Aten". That was manifested in the orientation of his temple to receive the sun rise on its longitudinal central part, on January the 2nd, in the fifth year of his reign. In that moment, Amen-Hotep IV changed his name to Akhen-Aten. Almost the same concept – to have the sunrays enter the interior- was applied to the city house design, to let the sun's rays illuminate the central hall's alter all the day; and that required to have the square house design tilted to the north and, to have the central hall's roof higher .

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Keywords:

1. Introduction

Moving the capital city of Egypt from "Thebes" to a new site by order of the King "Amen-Hotep IV" in the fourteenth century B.C. was a big risk. After four years of reigning from Thebes, the king moved to the new site leaving behind all the Amen's religion power to be secretly built up, waiting the right moment to regain position. The move time coincided with the time of shifting the theological centre of the country from "Amen" to "Aten", and consequently changing the Royal name of the king to "Akhen-Aten" (The glory of the Sun's Disk). Though the city lasted in his reign for sixteen years or so, it was soon abandoned after his disappearance, and Amen powerfully prevailed anew. Thanks God, the city was well preserved for the last 3370 years, under the sandy winds until it was uncovered in our times to be thoroughly studied.

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The appointed place of the new city was chosen east of the Nile (fig 1), and was planned to have three streets running from south to north, parallel to the adjacent Nile stream.

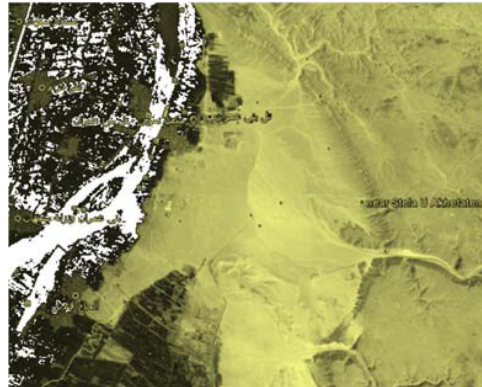


fig 1 The site of Akhet-Aten

The closest to the Nile street was kept to the royal family transport- it is called now "Sikket al-Sultan", the two others were left for people movements, of which the eastern one was called - after the German expedition- "The Priests way". All of the built up area of the city extended north from the central area, where were the main residential complex of the King "The Northern Suburb" mentioned by Aidan[1] "incorporated the royal family's regular residence". It also extended south, only making one and half kilometer width for the built up area of the city. Actually, the site took the shape of half a circle, 9 km. in diameter with continuous triple streets running along the Nile side, and the continuous curve of hills to the east. Within the hills there was a valley through which the flooded water of the olden times flushed from the eastern desert, then to spread in a delta shape over that site of the city. So the site was almost a horizontal flat bed, with an east-west distance 4400 meters from "sikket al Sultan" to the opening of the valley. Here is the point of the importance of this valley. From this opening of the valley, sun light starts the day to shine on the place (fig 2).

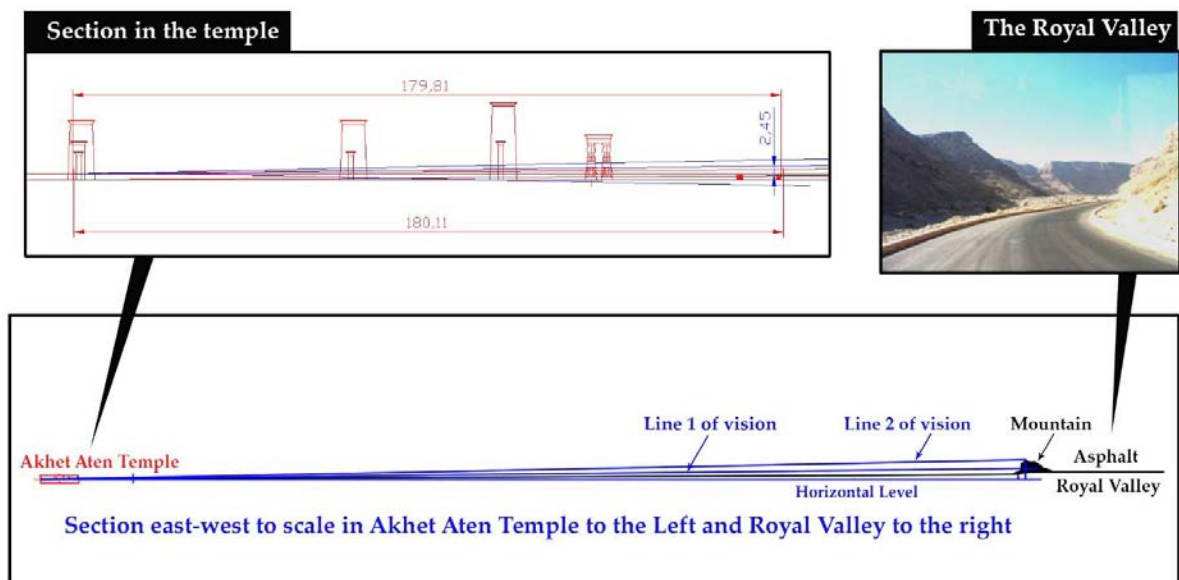


fig 2 A cross section in the city passing by the small temple, and ends at the royal valley.

The paper aims at showing the religious hypothesis of "monotheism"- which was a dogma of the "Aten" cult- according to Carl [2] "based on natural phenomena and not on mythology". It was clear that that hypothesis was forced by the "Heretic King" Akhen-Aten upon his country Egypt, and- as will be discussed later- consequently upon the architecture of the new capital. It is apparent that the move was all conceptually Akhenaten's genuine step toward real presentation of his heretic philosophy. Assuring to himself and to the world that he was the man of his word, he confirmed as Dorothea [3] mentioned *"Nor shall the King's Chief Wife say to me: look, there is a nice place for Akhet Aten someplace else". And the same is said about "any officials" who should utter words against the choice".* Accordingly, the paper will focus on the small temple design as the main concept of the king/philosopher, and the house architecture of his chosen officials in the "Northern Suburb".

Dependant on the Egyptian historical knowledge from literature, and the information supplied by the scientists of the various expeditions to Egypt- Prussian in 1942-45, the British, and especially the intricate details offered by the German expedition in the last century- some concepts became clear before the vision here.

2. SOCIAL STRUCTURE OF THE ROYAL FAMILY

May be some attention should be paid to the social structure of the royal family (fig 3). By then, that social structure was controlling the state social life of the time, which can easily be considered apart from our modern perception. That family structure had consequently affected the decision of planning every part of the new and the virgin site of the city at that time of the eighteenth dynasty and that might explain the special character of its architecture. Combined with the family sphere, there is the "religion impact" on the culture of the Egyptian mind at that time. In every aspect of living there was one central respect confirmed by Donald [4] "*each of its innovations was carried out in the name of - and in service to - religion*".

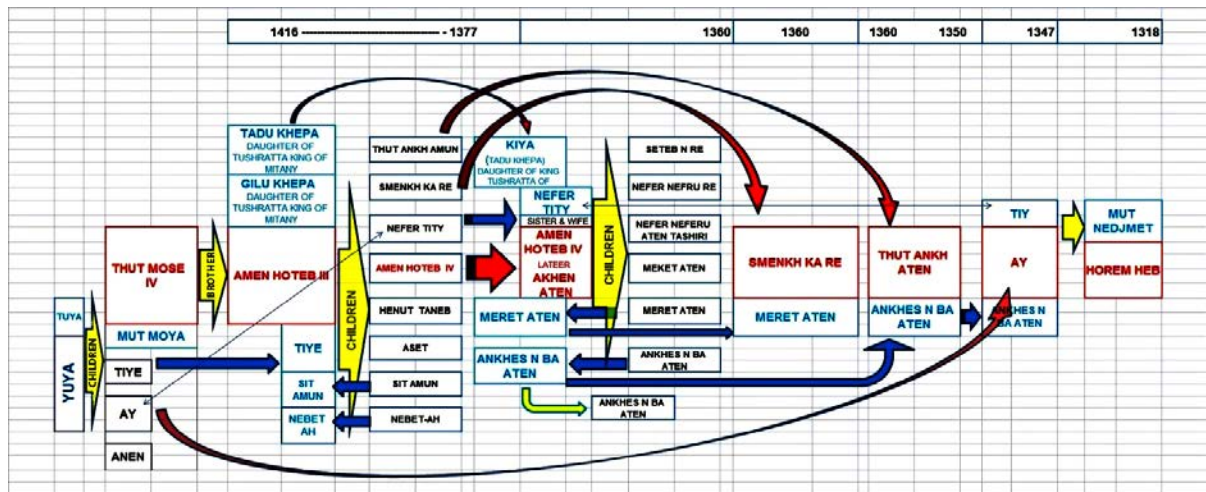


fig 3 The family structure of "Akhen-Aten", starting with his uncle "Thut-Mose IV" and "Yuya" (his mother's father), and ending with "Horem-Heb" and his wife "Mut-Nedjmet" (Ay's daughter).

By the introduction of the "New Empire" Egypt had a solid and good relationship with kingdoms of the ancient world like "Khita"/Hatti - the Hittites in Asia Minor-, "Mitanni", Assyria, and "Babylonia" along with peoples of the area like the "Khabiru", "Philistines", the Sashu, Amorites, and the Canaanites; Carl [2] mentioned "*To this end Artatama and Shutarna, the two predecessors of Tushratta, (kings of Mitanni) had sent their daughters to the harem of the Pharaohs*". Sharing the peoples of the area was not only by getting their daughters and other equipments like chariots and horses from their side, to exchange it with gold "*as you have it like dust of the earth*"† and protection afforded by the Egyptian army, but it was also through the idea of the "one god". That "one god" that spread light on earth was in Egypt before it came to be manifested by Akhen-Aten [fig 3-A]. And the concept of the "sun-disc" was there as says Donald [4] "*Thutmose IV and Amenophis III, grandfather and father of Akhenaten, enjoyed a closer relationship with the sun-disc than their predecessors*".

With that kind of relations, inside and outside Egypt, the social net was strongly formulated, keeping princesses for kings of their kin fathers or kin brothers inside the royal sphere. That was beside the great numbers of gift girls from the Asiatic kings to the royal house. So we find King Amen-Hotep III had beside his royal wife -strong queen-"Tiye" (fig 4-C) a quite good number of hareem, and so mentioned by Donald [4] that in a letter sent to Amen-Hotep III from Tushratta: "*To Nimmuria, the great king, the king of Egypt, my brother, my brother-in-law; who loves me and whom I love: Tushratta, the great king, thy (future) father-in-law, king of Mitanni let my brother send me much gold, without measure, more than to my father. For in my brother's land gold is as the dust of the earth. ... For this land is my brother's land, and this my house is his house.*" Kings of Mitanni by then had sent the two daughters of their's,

† Mentioned in a letter to Akhenaten from Shuttarna king of Mitanni.

"Tadu-Khepa" and Gilu-Khepa" whom the former was later transcend to the harem of Amen-Hotep IV (Akhen-Aten) after the death of Amen-Hotep III, and got a new name as a favorite lady "Kiya". A letter, mentioned by Carl [2] was sent to Tiye (wife of the late Amen-Hotep III) gives the important status of the queen mother in the country: *"To Tiye, Queen of Egypt, Tushratta, King of Mitanni. May it be well with thee, may it be well with thy son, may it be well with Tadukhepa, my daughter, thy young companion in widowhood"*.

Strong queen Tiye helped her brother "Ay" (fig 4-B) - son of Yuya who had Asiatic origin- attain a good position in the royal palace. Carl [2] mentioned that Ay became *"One of the most influential, and the one destined to play a significant role in the post-Amarna period, the favored one of the Good God, fan-bearer on the king's right hand, true king's scribe and god's-father .."*. And most probably that help was extended to Ay's wife to be, as said by Donald [2] *"Nefertity's wet-nurse"*. Nefertity (fig 3 -D) was one of seven children of Tiye and Amen-Hotep III, who later got married to Amen-Hotep IV (later to be Akhen-Aten). The seven children were: "Tut-Ankh-Amon", "Smenkh-Ka-Re", Nefertity", "Amen-Hotep III", "Henut-Taneb", Aset", and "Sit-Amon". Next photos are the great five who greatly affected the Akhet-Aten period. After Akhen-Aten, Ay- who was his mother's brother- got a higher status and played the crucial roles in the family until he got the thrown, Nefertity the wife and the mother of his daughters/wives, Kiya the beloved wife, who actually was "Tadu-Khepa" the daughter of Tushratta, king of Mitanni.

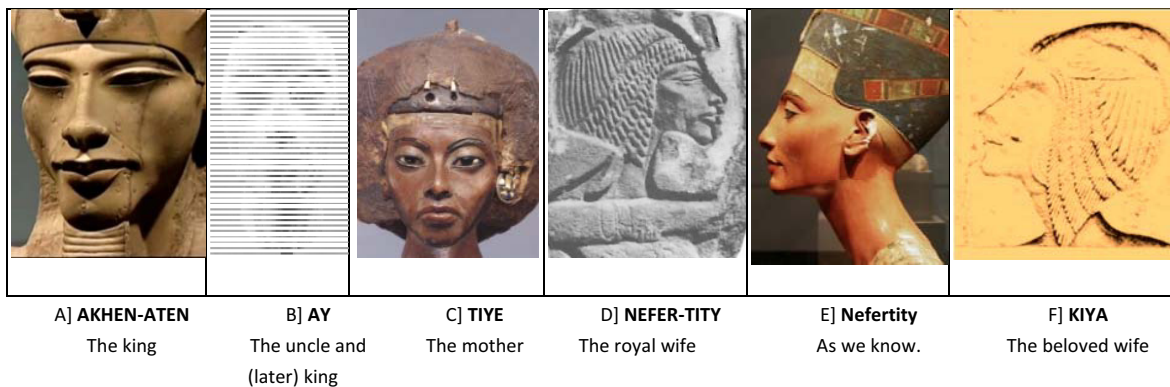


Fig 4 the great influential five of the Akhet-Aten period.

May be we take the chance here to tell that according to the mural works on the temple in Luxor, Nefertity (the royal wife) as it shows up in (fig 4-D) was definitely not Nefertity we knew from studio "Thut-mose" the sculptor in Akhet-Aten (fig 4-E). According to the shown profiles, most probably, that one in (fig 4-E) belonged to Kiya the beloved wife in (fig4 -F).

By the time of Amen-Hotep IV which lasted for 17 years, important person "Ay" was there asserted by Carl [2] *"called Haya in the Amarna letters, received golden honors to the full. This Haya, who was entitled "beloved royal scribe, was probably a secretary of state, and was once sent as a special ambassador to Babylonia"*. While he was in such a high profile, Akhen-Aten disappeared and, the younger brother "Smenkh-Ka-Re" not for long acquired the thrown, followed by the young "Tut-Ankh-Amen" who married his own sister "Ankhes-N-Ba Aten" daughter/ wife of Akhen-Aten. Finding herself in a vacuum, "Ankhes-N-Ba Aten" sent a letter to "Shuppiluliuma" king of "Hatti/ Khita", as Donald[4] mentioned, telling him: *....."My husband has died. A son I have not. But to thee, they say, the sons are many. If thou wouldst give me one son of thine, he would become my husband. Never shall I pick out a servant of mine and make him my husband.... I am afraid!"*. That reflects, for sure her, no confidence and fear of someone of no royal blood who would get the thrown. But anyhow, Ay got married to her and got the thrown. He got from his first wife a daughter "Mut-Nedjmet". His reign lasted for four years, and most probably ended by his death. Horem-Heb took "Mut-Nedjmet" for a wife, and started his reign. From here on, both Akhet-Aten and Akhen-Aten became invisible in history, until the last century when a peasant woman from the last century while plowing the land crushed an archive pottery container, revealing hundreds of what was called "Amarna Letters". These letters worked as documents, in addition to what was there on pieces of art scattered all over the world, to tell us what was there in Akhet-Aten.

3. Architecture

A) The first interesting building for the researcher was the small Sun-Temple[‡]. As it was up said that religion- and here was the fact of sun-light felt by the eye, and not a myth represented by a creature- had controlled the design in a way that the light of the sun covered the whole edifice without any restriction. The design also allowed the dawn light to first of all touch the beginning of the temple in its nearest point to the east where Akhen-Aten in his own special place -only by himself- received the first lights of the day. It was only him - he believed-who was permitted by his god to receive his first light. Other people could feel it the rest of the day. That effect was realized by having the axis of the temple passing by the entrance to the royal valley (fig 5); and that only happened in winter time when azimuth of the sun was 102 degrees measured clockwise from north. So, he decided to impose his new discipline for the sun-light on the country in that day.

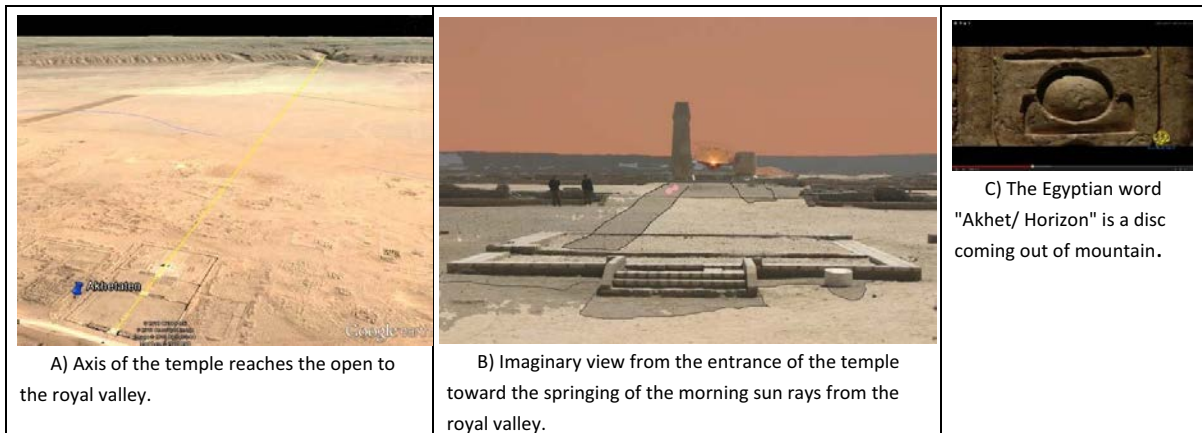


fig 5 The small temple with its axis shooting to the royal valley (A), in order to get the first dawn's light out of eastern mountain on the Akhen-Aten's prayer hall on the 2nd of January (B), and the hieroglyphic word expressing the dawn "Horizon" (C).

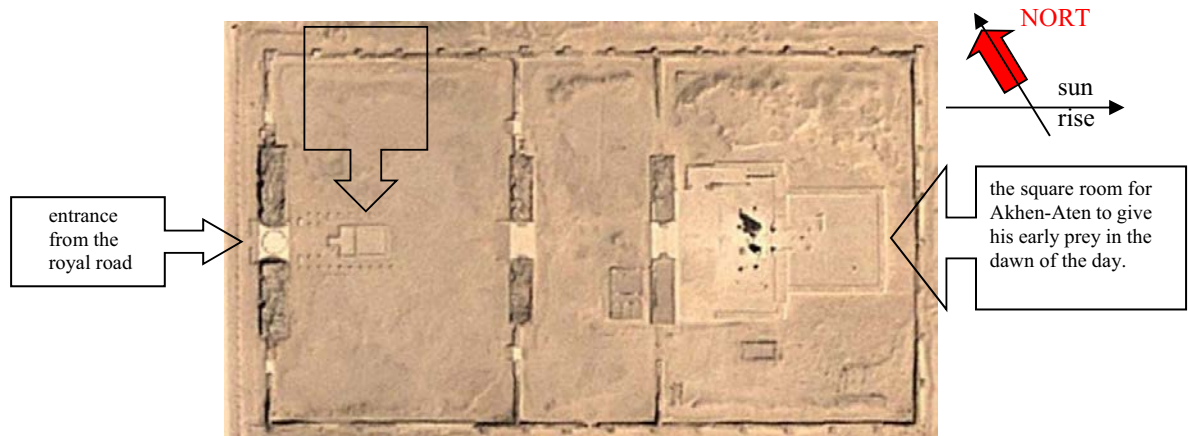


fig 6 The small sun temple in Akhet-Aten as it appears in nature now in Google Earth.

[‡] Measures about 103 m width, and 188m long.(by the author measure from Google Earth).

From resources, Google Earth, photographs from mural drawings, and information from literature we could draw in 3D this important historical building -The small Temple (fig 7). It shows how we imagine that open to sky temple so far came to be different from all temples in Egypt. Instead of having the design with the sacred dim closed room left in the farthest depth of the temple to contain what represented god, it came here in an open to sky room nearest to the east to receive the first light of Aten the god.

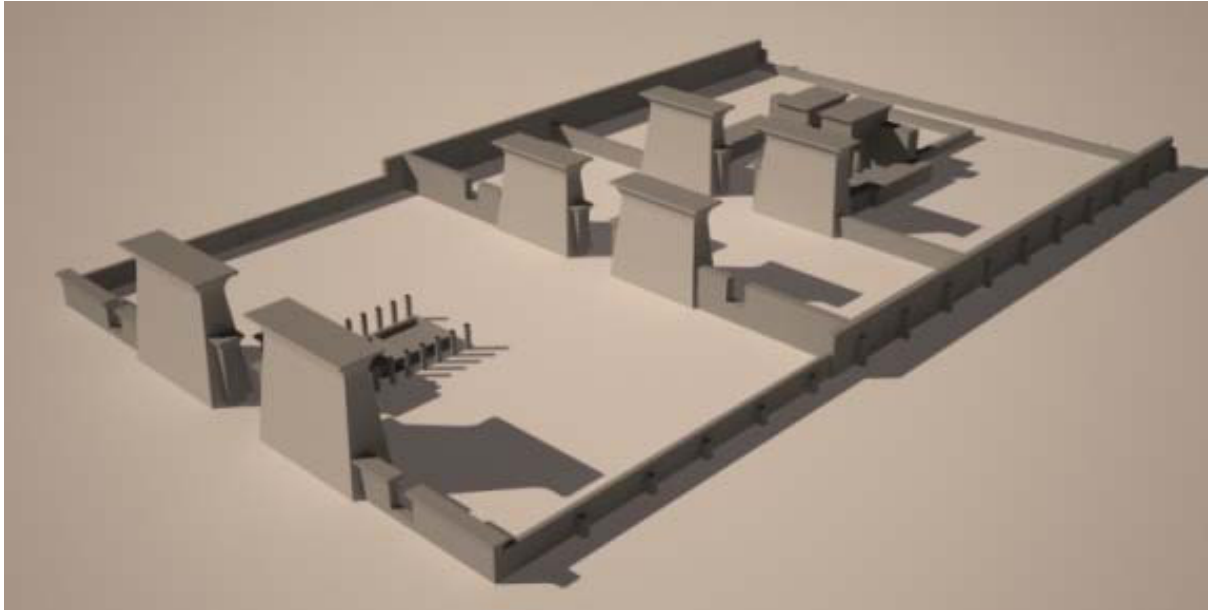


fig 7 Reconstruction to the temple, to show the extent of openness through the whole design until the last prayer hall for Akhen-Aten at its closest point to the east.

That western facade of the temple (fig 8) was facing the royal road, in front of the family palace. It must have been clear from its entrance that the sky was open all the way to the end of the temple where the prayer hall of the king, permitting the light to shed upon all over the place. There was no any horizontal roof to any place in the temple. Starting from the first pylon to the third, the edifice was divide into two side parts, again to permit the light to penetrate all the way to the prayer hall in the farthest end of the temple. To have this effect, there should not have been any obstacle or any wall or a fence to hide the light of the dawn from being seen by the eyes of the worshipper king. So, we are sure that the prayer room for King Akhen-Aten situating in the east must have had a low height eastern wall encompassing the temple to permit the early light of the dawn to cast upon the king first; and the topography of the

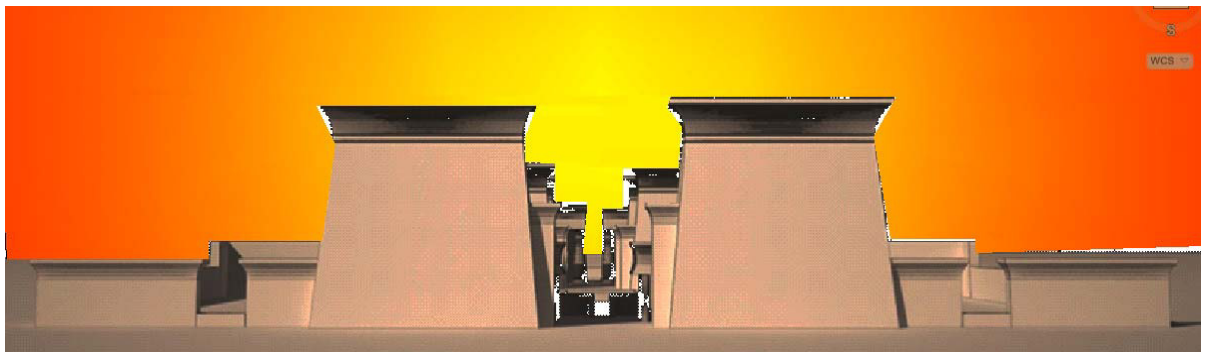


fig 8 The western facade with entrance on the main open to sky axis, permitting light of the dawn to shine.

site allowed that effect. In the mean time, there was a preliminary place - a raised by three steps podium encountered by a raised rim - in the area just following the entrance, for the sake of offering respect to the temple.

B) The second interesting point was the design of the city. Apart from the social structure that affected the design, the groups of the big houses with fenced properties were nearby the groups of the small houses of the artisans. That setting reflected the nonracial policy of the state. That was obvious in the northern suburb (fig 9) - on streets, the western and the eastern. That may have happened according to the haste of constructing the city which obliged people of decorating and furnishing the houses to be close to their working places.



fig 9 The fabric of the north suburb, with mansions of the high ranking people, and adjacent to them the groupings of artisans' houses.

.Houses as usual in Akhet-Aten had four main sectors on an almost square plan. The square plan had its sides inclined to the North by a degree that permits the sun's early light of the second of January pours into the inside of the house. We could simply say that the angle was 60 degrees from the east - as we deduced it in the central area of the



fig 10 house of vizier Nakht (reconstruction), entrance with 8 steps to the right of figure, then in a left U turn to the reception hall, then to the right to the central hall of higher roof.

city- and it is less in the northern suburb. Entrances were to be only approached from either the northern-east side or from the northern-west side of the houses. After the entrance comes the reception hall which was usually on a longitudinal proportion looking upon the main facade, - is called in literature "northern hall"- and superimposed by a second floor logia. Behind the reception hall there was the important feature of the house "The Central Hall". That hall had a higher roof than the rooms around, permitting light from the sun to penetrate to the inside. Here, sun rays came only from three sides spare the "northern" side, where the reception hall was, along with the logia on its roof.

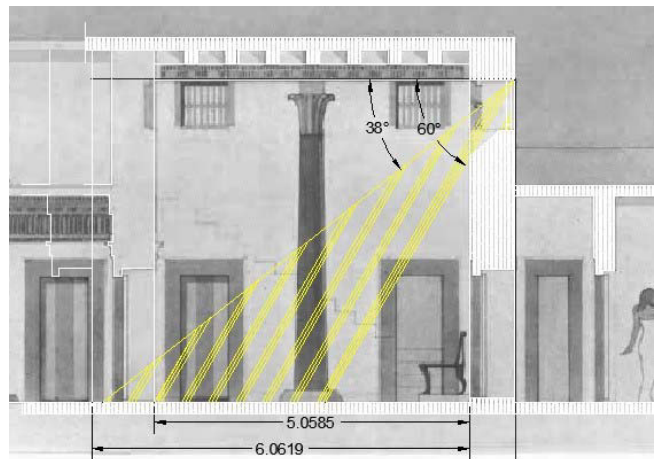
As an example, we have here the house of Vizier Nakht (fig 10). On the three sides around the central hall there were the sleeping quarter far to the south, the kitchen to a side overlooking the smaller hall, and the staircase on the south eastern side leading to the roof where the logia was. But here the central hall is the element which attracts the researcher attention. The central hall had the four columns- representing Nut- raising the roof higher than roofs of other rooms around, and permitting the sun's light penetrate through windows. The first light that comes in the day was the south eastern, was to shed on the dais situated on the other side of the floor.

This act of having light to penetrate through the split level of the roof is represented in the drawing (fig 11). But here we have used a drawing of a section of house (V37.1) in the north suburb§, and we drew on it the area lit by the sun through the day. To draw such inclinations of the sun's rays in the section, we calculated what was needed from the sun path diagram of the Akhet -Aten latitude 27.5 n.

The houses in Akhet-Aten, Vizier Nakht house as an example (fig 10), usually had a fixed social line of circulation, and a fixed design for the central hall. The main entrance was usually raised by about eight steps, designed to be on the northern part of the house, then in a left U turn one drops in the reception hall. That hall acted as an official part of the house, which precedes the family living area for the master of the house. The central hall had either a four columns or one central column to support a raised roof; sun light came from three sides through grilled windows, leaving the fourth wall blocked by the reception hall with its superimposed logia.

What is interesting in the up said words is the insertion of the morning light through the grilled windows and to be cast upon the dais on the confronting side of the hall. So people of the house could appreciate that morning light upon the offerings every day, and for the rest of the day trough other sides.

In front of the dais, there was a one step raised podium for the master to sit, and in front of him there was usually a pit for fire to warm the place.



Section Through V.37.1

fig 11 sun morning light casting on the confronting wall where was the dais for offerings on the floor.

□ as it was done by the German Expedition in last century.

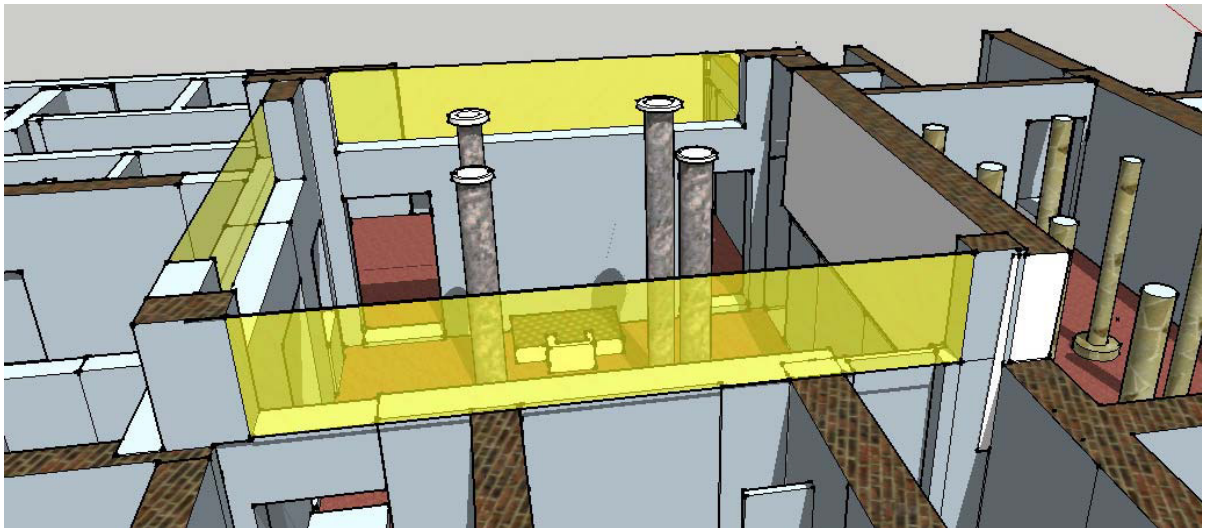


fig 12 this shows that through the eastern side of the central hall of Vizier Nakht, sun cast its lights on the dais where the master of the house put the offerings. Sun light could continue flushing rays through the other two sides, but not from the northern side. (The yellow screen represents the grilled windows side).

A very good example of the dais is the one in Vizier Nakht house, as it shows in centre of fig (12). It measures almost 1.5 meters times 0.8 meter, raised on the floor by one step, and having a raised rim apart from the step place. Here offerings were presented by the people of the house to pay respect for the god.

4. Conclusion:

Architecture in Akhet-Aten reflected the requirements of the new religion which was mainly focusing on the source of daily sun light, especially in the beginning of the day, and the spread of light all over the place in the rest of the day. That impression of having sunrays penetrate the interior happened as in a temple as in a house. January the second was most probably the day when the sun rose from the horizon at the royal valley, casting its rays exactly on the spine of the small temple and the other edifices of the city; and it was the day when Akhen-Aten acquired his new name. Houses of Akhet-Aten were almost on a square plan having entrances only on the northern sides. The central hall of the house had a clear storey in the roof to let the sun rays penetrate all the days of the year. Architecture dealt at that time with the truth and the seen fact that "God is Light", and not with a myth or an imagination as it was used to be in Egypt.

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